

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Mr. Hannigan puts 12 pencils into boxes. Each box holds 4 pencils. Circle groups of 4 to show the pencils in each box.



Mr. Hannigan needs \_\_\_\_\_ boxes.

\_\_\_\_\_  $\times$  4 = 12

12  $\div$  4 = \_\_\_\_\_

2. Mr. Hannigan places 12 pencils into 3 equal groups. Draw to show how many pencils are in each group.

There are \_\_\_\_\_ pencils in each group.

3  $\times$  \_\_\_\_\_ = 12

12  $\div$  3 = \_\_\_\_\_

3. Use an array to model Problem 1.

a. \_\_\_\_\_  $\times$  4 = 12

b. 3  $\times$  \_\_\_\_\_ = 12

12  $\div$  4 = \_\_\_\_\_

12  $\div$  3 = \_\_\_\_\_

The number in the blanks represents

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\_\_\_\_\_.

\_\_\_\_\_.

4. Judy washes 24 dishes. She then dries and stacks the dishes equally into 4 piles. How many dishes are in each pile?

$$24 \div 4 = \underline{\hspace{2cm}}$$

$$4 \times \underline{\hspace{2cm}} = 24$$

What is the meaning of the unknown factor and quotient? \_\_\_\_\_

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5. Nate solves the equation  $\underline{\hspace{1cm}} \times 5 = 15$  by writing and solving  $15 \div 5 = \underline{\hspace{1cm}}$ . Explain why Nate's method works.

6. The blanks in Problem 5 represent the number of groups. Draw an array to represent the equations.